

Cryptogramma stelleri (Gmel.) Prantl

Steller's rockbrake

Polypodiaceae (Common Fern Family)

Status: State Sensitive

Rank: G5S1S2

General Description: Adapted from Hitchcock et al. (1969): A delicate, slender, fern with a slender creeping rhizome that is soft and fleshy the first season and becomes hard and wrinkled later on and bears some small and relatively broad inconspicuous, thin, translucent, networked scales that are up to 1/16 in. (2 mm) long. There are both fertile and sterile leaves that are scattered along the rhizome, and the fertile ones are obviously different from the sterile ones. The petioles are dark brown or dark purple at least toward the base, usually greenish or light brown toward the apex, mostly 1 to 6 in. (2½ to 15 cm) long, and the fertile ones are often a little longer than the sterile ones. The sterile blades are ¼ to 3 1/8 in. (3 to 8 cm) long and ¾ to 2 in. (2 to 5 cm) wide, 2 to 3 times pinnate with merging, fan-shaped to ovate, distally toothed, soft pinnules that are mostly 1/8 to ½ in. (5 to 15 mm) long and 1/8 to ¼ in. (3-10 mm) wide. The fertile leaves are more or less strongly modified, the pinnules are longer and narrower, sometimes linear, as much as ¾ in. (2 cm) long and 1/8 to ¼ in. (3 to 5 mm) wide. The fertile pinnules have rather narrowly reflexed, evidently thin, translucent, dry, membranaceous indusial margins that seldom meet in the center.

Identification Tips: There are three species of *Cryptogramma* in the Pacific Northwest. *C. stelleri* can be distinguished from the two other species by its rhizomes and how its leaves are distributed on the rhizomes. The leaves of *C. stelleri* are scattered on a more elongate, slender rhizome, while the leaves of *C. densa* and *C. crispa* are densely tufted on a short, much branched rhizome. A technical key is recommended for positive identification.

Phenology: Identifiable from June to August.

Range: *Cryptogramma stelleri* is found in central Alaska, south through the Yukon and British Columbia, to northeastern Washington and northwestern Montana. It is also found in the east from Ontario to Newfoundland, south to Minnesota, Iowa, Illinois, Michigan, New York, Pennsylvania, and New Jersey. Isolated populations exist in Wyoming and Colorado.

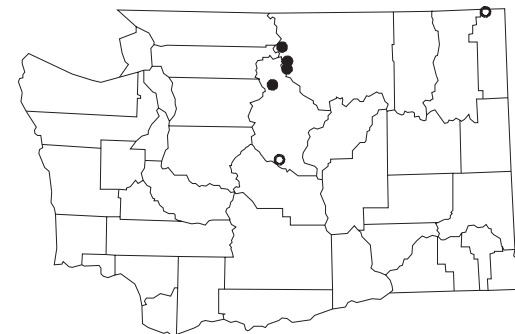
Cryptogramma stelleri

Steller's rockbrake



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Illustration by Jeanne R. Janish

Known distribution of
Cryptogramma stelleri
in Washington



● Current (1980+)
○ Historic (older than 1980)

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Photo by Janet Novak



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Habitat: This species grows on moist, shaded cliffs and ledges at middle and upper altitudes in the mountains. In Washington, it is commonly found on limestone cliffs at an elevation of 3000 to 6000 ft (914 to 1829 m). Associated species include wood saxifrage (*Saxifraga mertensiana*) and brittle bladder-fern (*Cystopteris fragilis*).

Ecology: This typically boreal species prefers to grow in relatively dark, wet areas on calcareous, rocky ground.

State Status Comments: Known from two historical occurrences from Pend Oreille and Chelan counties and less than five recent occurrences from Chelan and Okanogan counties. All current populations are known from land managed by the U.S. Forest Service.

Inventory Needs: Moist, shady limestone cliffs and ledges, especially those upslope from existing populations, at mid to high elevations in Pend Oreille, Chelan, and Okanogan counties, should be systematically surveyed for additional populations.

Threats and Management Concerns: Definite threats have not been identified for this species. However, the small number of known occurrences is a major concern. Any disturbance to the immediate habitat may constitute a threat.

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons*. University of Washington Press, Seattle, WA. 914 pp.

Cryptogramma stelleri Information Page. November 4, 2003. <http://www.rook.org/earl/bwca/nature/ferns/cryptogramma.html>.